#### Rubin & Hays

Kentucky Home Trust Building, 450 South Third Street, Louisville, Kentucky 40202-1410 Telephone (502) 569-7525 Telefax (502) 569-7555 www.rubinhays.com

CHARLES S. MUSSON W. RANDALL JONES CHRISTIAN L. JUCKETT

November 9, 2009

NOV 1 2 2009

PUBLIC SERVICE COMMISSION

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602

Re:

Letcher County Water and Sewer District - Kentucky Public Service Commission Application for a CPCN for a Water System Improvements Project - Knott County Connection Project

Dear Mr. Derouen:

Enclosed please find the original and ten (10) copies of the Application of the Letcher County Water and Sewer District for a Certificate of Public Convenience and Necessity to construct a water system improvements project pursuant to KRS Chapter 278.

Also enclosed are eleven (11) copies of the exhibits required, with the exception of the Plans and Specifications, prepared by Bell Engineers, Inc., on the Project, two of which are being forwarded by said Engineers.

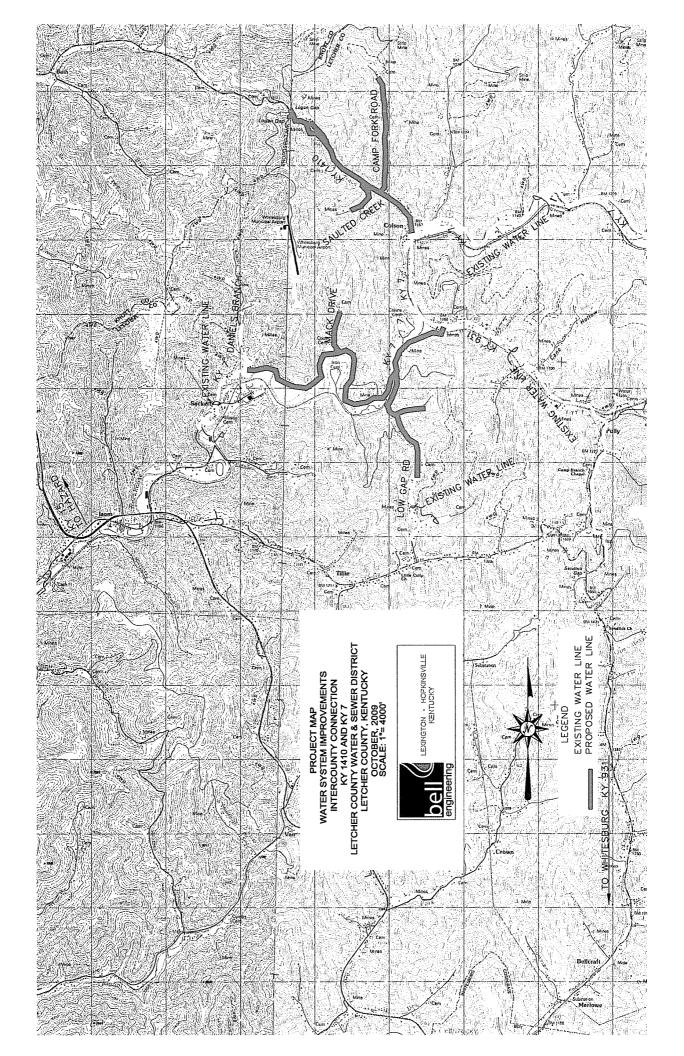
Sincerely,

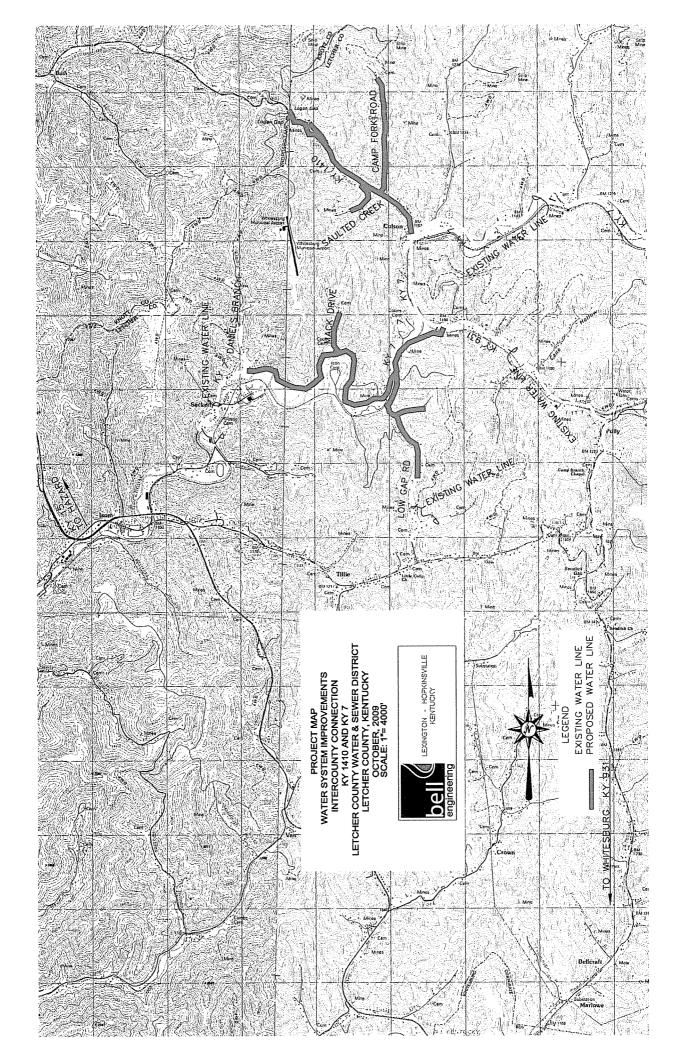
Rubin & Hays

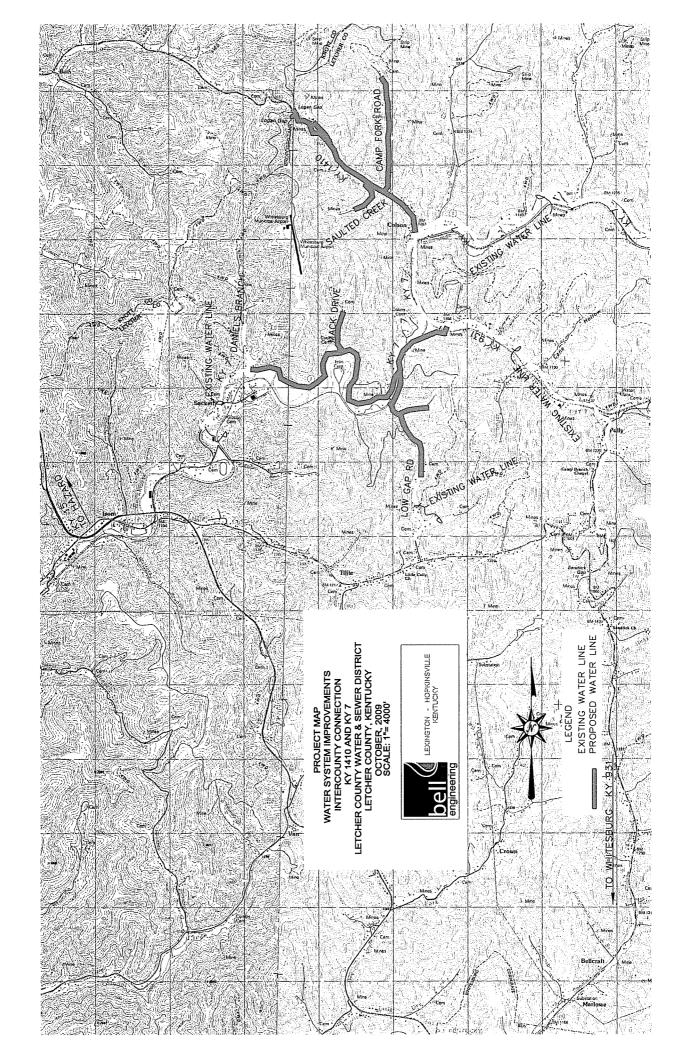
WRJ:jlm Enclosures

cc: Mr. Tim Reed, LCWSD

Stephen Caudill, Bell Engineering







#### COMMONWEALTH OF KENTUCKY

#### BEFORE THE PUBLIC SERVICE COMMISSION

Tn	tha	matter	of
ш	une	maner	OI.

APPLICATION OF THE LETCHER COUNTY WATER	)
AND SEWER DISTRICT FOR A CERTIFICATE	)
OF PUBLIC CONVENIENCE AND NECESSITY TO	) Case No. 2009
CONSTRUCT A WATERWORKS IMPROVEMENTS	)
PROJECT PURSUANT TO KRS 278.020	)

#### **APPLICATION**

The Letcher County Water and Sewer District (the "District"), by counsel, pursuant to KRS 278.020, petitions the Commission for a certificate of public convenience and necessity to construct a waterworks improvement project. The following information is filed in accordance with the Commission's regulations:

- 1. The District's office address is P.O. Box 827, Whitesburg, Kentucky 41858. Its principal officers are listed in its 2008 Annual Report, which is on file with the Commission;
- 2. The District is a non-profit water district organized under KRS Chapter 74 and has no separate articles of incorporation or by-laws;
- 3. A description of the District's water system and its property stated at original cost by accounts is contained in its 2008 Annual Report, which is incorporated by reference pursuant to 807 KAR 5:001 Section (5)(5). All required normal financial schedules and other data are in the Annual Report;
- 4. The water improvements project (the "Project") consists of the construction and installation of an intercounty connection along KY 1410 and KY 7 that will connect the District's

system to the Knott County Water District's distribution system. This will provide the District with the opportunity to obtain water from Carr Fork Lake. The project also includes the construction and installation of approximately 8,317 linear feet of 12 inch line; 20,302 linear feet of 8 inch line; 120 linear feet of 6 inch line and 15,438 linear feet of 3 inch water line to serve approximately 116 new customers in the northern section of Letcher County;

- 5. The Project is in the public interest and will improve the District's access to a water supply and provide water to approximately 116 new users who currently rely on wells, cisterns and springs for potable water;
- 6. The total project cost is approximately \$1,300,000, as forth in the Final Project Budget attached hereto as **Exhibit "A"**;
  - 7. The District has obtained all of the easements for the Project;
  - 8. This service will not compete with any other utility in the area;
- 9. Based on these facts, the District believes that it is in the public interest that this certificate be granted and that the plan of financing be authorized;
  - 10. Copies of the certified bid tabulations are attached hereto as **Exhibit "B"**;
  - 11. The following information is provided in response to 807 KAR 5:001 Section (8)(3);
- a. Articles of Incorporation None, the District is a statutorily created water district under KRS Chapter 74;
  - 12. The following information is supplied to 807 KAR 5:001 Section (9)(2);
- a. Facts relied upon to show that the Project is in the public interest: The water project will provide a new source of water and also water service to approximately 116 new users who currently rely on wells, cisterns and springs for potable water;

No new franchises are required. Copies of the permits are attached hereto as b.

Exhibit "C";

Diagrams of the proposed construction and construction specifications are c.

contained in the Plans and Specifications on file with the Commission;

Three (3) maps of suitable scale showing location of the proposed facilities d.

are attached hereto;

The construction costs will be funded from the proceeds of (i) an Abandoned e.

Mine Land ("AML") grant in the amount of \$300,000; and (ii) a Kentucky Coal Severance grant in

the amount of \$1,000,000;

The estimated cost of operation of the system after Project completion is f.

attached hereto as Exhibit "D";

WHEREFORE, the Applicant, Letcher County Water and Sewer District requests that the

Public Service Commission of Kentucky grant to the Applicant a certificate of public convenience

and necessity permitting the Applicant to construct a water system improvement project.

Letcher County Water and Sewer District

By Philey Agach Chairman

Rubin & Hays

W. Randall Jones

Kentucky Home Trust Building

450 South Third Street

Louisville, Kentucky 40202

(502) 569-7525

COMMONWEALTH OF KENTUCKY	)	
	) :	SS
COUNTY OF LETCHER	)	

The undersigned, Phillip Back, being duly sworn, deposes and states that he is the Chairman of the Letcher County Water and Sewer District, Applicant, in the above proceedings; that he has read the foregoing Application and has noted the contents thereof; that the same is true of his own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, he believes same to be true.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on this October 3.

Phillip Back, Chairman

Letcher County Water and Sewer District

Subscribed and sworn to before me by Phillip Back, Chairman of the Letcher County Water and Sewer District, on this October 3, 2009.

My Commission expires HULLA

Motary Public

In and for said County and State

#### SOURCE OF PROJECT FUNDING HWY 1410 / KNOTT COUNTY CONNECTOR LETCHER COUNTY WATER AND SEWER DISTRICT

 Abandoned Mine Lands (Grant Funds)
 \$ 300,000.00

 Coal Severance (Grant Funds)
 \$ 1,000,000.00

 Total
 \$ 1,300,000.00

#### PROJECTED PROJECT EXPENDITURES HWY 1410 / KNOTT COUNTY CONNECTOR LETCHER COUNTY WATER AND SEWER DISTRICT

As-Bid Construction Cost	\$ 899,382.20
Construction Contingencies @ 10%	\$ 98,524.80
Funding Administration	\$ 45,000.00
Additional Services	\$ 35,000.00
Design	\$ 73,646.00
Bidding	\$ 8,094.00
General Engineering	\$ 16,189.00
RPR Services	\$ 52,164.00
Preliminary Engineering Report	\$ 7,000.00
Legal	\$ 20,000.00
Right-of-Way	\$ 45,000.00
Preliminary Opinion of Probable Project Cost	\$ 1,300,000.00

KY 1410 AND KY 7 LETCHER COUNTY WATER AND SEWER DISTRICT LETCHER COUNTY, KENTUCKY WATER SYSTEM IMPROVEMENTS INTERCOUNTY CONNECTION ONTRACT 519-08-04

We certify that the following is a true and complete tabulation of all bids received by the Letcher County Water and Sewer District, on September 22, 2009, for the titled project.

BELL ENGINEERING

			Stotts Const	ruction Co., Ir	Stotts Construction Co., Il Music Construction Co., Inc.	$\overline{}$	Ronnie Mullins & Sons, Inc.		Akins Excavating Co., Inc.		B.P. Pipeline, LLC	U
			P.O. Box 1689 203 Burkesvill Columbia. Ken	P.O. Box 1689 203 Burkesville Street, #1 N Columbia. Kentucky 42728	P.O. Box 1689 203 Burkesville Street, #1 Mt. Sterling, Kentucky 40353 Columbia. Kentucky 42728		P.O. Box 427 Elkhorn City, Kentucky 41522	ıtucky 41522	182 Busy Lane Corbín, Kentucky 40701		269 Pebbie Lane Quincy, Kentucky 41166	e <y 41166<="" th=""></y>
FEM 5	ITEM	QUANTITY UNIT		TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL
IVISI	IVISION "A" - HIGHWAY 1410 CONNECTOR							To the state of th				
-	12-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying, Backfilling, Fittings and Copper Tracer Wire, Unclassified Excavation, Complete	8,317 L.F.	\$22.00	\$182,974.00	\$25.00	\$207,925.00	\$27.00	\$224,559.00	\$31.50	\$261,985.50	\$38.00	\$316,046.00
7	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying, Backfilling, Fittings and Copper Tracer Wire, Unclassified Excavation, Complete	120 L.F.	\$8.50	\$1,020.00	\$13.00	\$1,560.00	\$13.00	\$1,560.00	\$15.00	\$1,800.00	. \$23.00	\$2,760.00
m	12-Inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete	9 Each	\$1,650.00	\$14,850.00	\$2,000.00	\$18,000.00	\$2,350.00	\$21,150.00	\$2,350.00	\$21,150.00	\$2,300.00	\$20,700.00
3a	8-Inch Mechanical Joint Resilient Seated Gate Valve And Box, Inciuding Concrete Valve Box Collar, Complete	1 Each	\$950.00	\$950.00	\$1,100.00	\$1,100.00	51,250.00	\$1,250.00	\$1,300.00	1,300.00	\$900.00	\$900.00
4	6-Inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Vaive Box Collar, Complete	3 Each	1 \$720.00	\$2,160.00	\$800.00	\$2,400.00	\$950.00	\$2,850.00	\$1,000.00	\$3,000.00	\$600.00	\$1,800.00
אַר	5/8-Inch x 3/4-Inch Meter Setting but Does Not Include Meter but Does Include PRV, Meter Box, Cover, Corporation Stop, Saddle, and Tap, Furnish and Install, Complete	15 Each	\$740.00	\$11,100.00	\$825.00	\$12,375.00	\$830.00	\$12,450.00	\$690.00	\$10,350.00	\$900.00	\$13,500.00
9	5/8-Inch x 3/4-Inch Meter Setting but Does Not Include Meter but Does Include Meter Box, Cover, Corporation Stop, Saddle, and Tap, Furnish and Install, Complete	2 Each	\$700.00	\$1,400.00	\$750.00	\$1,500.00	\$730.00	\$1,460.00	\$590.00	\$1,180.00	\$850.00	\$1,700.00
7	5/8-Inch x 3/4-Inch Meter with Touch-Read Assembly, Installed, Complete	17 Each	1 \$160.00	\$2,720.00	\$200.00	\$3,400.00	\$300.00	\$5,100.00	\$310.00	\$5,270.00	\$0.00	\$0.00
8	3/4-Inch Polyethylene Service Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Copper Tracer Wire, Unclassified Excavation, Complete	1,200 L.F.	\$6.25	\$7,500.00	\$5.00	\$6,000.00	\$7.00	\$8,400.00	\$7.00	\$8,400.00	\$10.00	\$12,000.00
6	16-Inch x 0.281-inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	66 L.F.	\$45.00	\$2,970.00	\$50.00	\$3,300.00	\$100.00	\$6,600.00	\$75.00	\$4,950.00	\$150.00	\$9,900.00
10	Boring or Jacking for 16-Inch Steel Cover Pipe, Unclassified Excavation	96 L.F.	\$85.00	\$5,610.00	\$125.00	\$8,250.00	\$200.00	\$13,200.00	\$120.00	\$7,920.00	\$200.00	\$13,200.00
-	Fiberglass Line Marker, Furnish and Install, Complete	8 Each	h \$30.00	\$240.00	550.00	\$400.00	\$30.00	\$240.00	\$50.00	\$400.00	\$50.00	\$400.00

ONTRACT 519-08-04 WATER SYSTEM IMPROVEMENTS
INTERCOUNTY CONNECTION
KY 1410 AND KY 7
LETCHER COUNTY WATER AND SEWER DISTRICT
LETCHER COUNTY, KENTUCKY

We certify that the following is a true and complete tabulation of all bids received by the Letcher County Water and Sewer District, on September 22, 2009, for the titled project.

BELL ENGINEERING

						Ī	***************************************	I				
			Stotts Constru P.O. Box 1689 203 Burkesvill	truction Co., Ir 89 ville Street. #1	Stotts Construction Co., Irj Music Construction Co., Inc. P.O. Box 1689 203 Burkesville Street, #1 Mt. Sterling. Kentucky 40353	~~	Ronnie Mullins & Sons, Inc. P.O. Box 427 Elkhorn Citv. Kentucky 41522	22	Akins Excavating Co., Inc. 182 Busy Lane Corbin: Kentucky 40701		B.P. Pipeline, LLC 269 Pebble Lane Onincy Kentucky 41166	.C re kv 41166
			Columbia, h	Columbia, Kentucky 42728	8	-		,				
NO NO	ITEM	QUANTITY UNIT	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL
21	Test Meter/Tap Assembly, Furnish and Install, Per Detail, Complete	2 Each	₩	\$4,000.00	\$3,000.00	\$6,000.00	\$2,500.00	\$5,000.00	\$2,500.00	\$5,000.00	\$800.00	\$1,600.00
13	Cut-In to Existing 8-Inch Main, Complete	1 Each	\$250.00	\$250.00	\$1,225.00	\$1,225.00	\$3,000.00	\$3,000.00		\$1,330.00	\$2,600.00	\$2,600.00
7	Crushed Rock on Trench Surface, In Place	40 Ton	\$18.00	\$720.00	\$20.00	\$800.00	\$21.00	\$840.00	\$30.00	\$1,200.00	\$40.00	\$1,600.00
12	6-Inch Flushing Hydrant Assembly, with Tee, Pipe, Valve, Valve Box and Blocking, Complete	- F	\$3,000.00	\$3,000.00	\$3,500.00	\$3,500.00	\$3,000.00	\$3,000.00	\$3,200.00	\$3,200.00	\$3,200.00	\$3,200.00
16	2-Inch Thickness Bituminous Surface Replacement, Trench Width, On Drives and Roads, Complete	40 L.F.	\$20.00	\$800.00	\$20.00	\$800.00	\$20.00	\$800.00	\$25.00	\$1,000.00	\$50.00	\$2,000.00
17	Master Meter Vault, Complete	1 L.S.	L.S.	\$15,500.00	L.S.	\$13,000.00	L.S.	\$14,500.00	۲.5.	\$22,750.00	L.S.	\$28,000.00
18	Main Line Pilot Operated Pressure Reducing Station, Complete	1 L.S.	L.S.	\$15,500.00	L.S.	\$15,000.00	L.S.	\$15,000.00	L.S.	\$30,500.00	L.S.	\$25,000.00
	Subtotal - Division "A"			\$273,264.00		\$306,535.00		\$340,959.00		\$392,685.50		\$456,906.00
SIVIC	JIVISION "B" - CAMP FORK ROAD AND SALUTED CREEK ROAD											
-	3-inch Class 250 (5DR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying, Backfilling, Fittings and Copper Tracer Wire, Unclassified Excavation, Complete	10,697 L.F.	\$6.50	\$69,530.50	\$6.00	\$64,182.00	\$8.00	\$85,576.00	\$10.25	\$109,644.25	\$12.00	\$128,364.00
7	3-inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete	8 Each	h \$550.00	\$4,400.00	\$600.00	\$4,800.00	\$500.00	\$4,000.00	\$850.00	\$6,800.00	\$400.00	\$3,200.00
m	5/8-Inch x 3/4-Inch Meter Setting but Does Not Include Meter but Does Include PRV, Meter Box, Cover, Corporation Stop, Saddle, and Tap, Furnish and Install, Complete	36 Each	h \$740.00	\$26,640.00	\$825.00	\$29,700.00	\$830.00	\$29,880.00	\$690.00	\$24,840.00	\$900.00	\$32,400.00
4	5/8-Inch x 3/4-Inch Meter with Touch-Read Assembly, installed, Complete	36 Each	н \$160.00	\$5,760.00	\$200.00	\$7,200.00	\$300.00	\$10,800.00	\$310.00	\$11,160.00	\$0.00	\$0.00
20	3/4-Inch Polyethylene Service Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Copper Tracer Wire, Unclassified Excavation, Complete	2,340 L.F.	\$6.25	\$14,625.00	\$5.00	\$11,700.00	\$7.00	\$16,380.00	\$7.00	\$16,380.00	\$10.00	\$23,400.00
9	Fiberglass Line Marker, Furnish and Install, Complete	14 Each	h \$30.00	\$420.00	\$50.00	\$700.00	\$30.00	\$420.00	\$50.00	\$700.00	\$50.00	\$700.00
Ż	Crushed Rock on Trench Surface, In Place	i 50 Ton	١ \$18.00	\$2,700.00	\$20.00	\$3,000.00	\$21.00	\$3,150.00	\$30.00	\$4,500.00	\$40.00	\$6,000.00

WATER SYSTEM IMPROVEMENTS
INTERCOUNTY CONNECTION
KY 1410 AND KY 7
LETCHER COUNTY WATER AND SEWER DISTRICT
LETCHER COUNTY, KENTUCKY ONTRACT 519-08-04

We certify that the following is a true and complete tabulation of all bids received by the Letcher County Water and Sewer District, on September 22, 2009, for the titled project.

BELL ENGINEERING

		Stotts Constru P.O. Box 1689 203 Burkesvill	ruction Co., In of grant of the Street, #1 of th	Stotts Construction Co., It Music Construction Co., Inc. P.O. Box 1689 2510 Margaret Ann Drive 203 Burkesville Street, #1 Mt. Sterling, Kentucky 40353		Ronnie Mullins & Sons, Inc. P.O. Box 427 Elkhorn City, Kentucky 41522	22	Akíns Excavating Co., Inc. 182 Busy Lane Corbin, Kentucky 40701		8.P. Pipeline, LLC 269 Pebble Lane Quincy, Kentucky 41166	y 41166
FVLO		Columbía, K	Columbia, Kentucky 42728	FINIT		TINI		TINU		TINO	
J EM JO. ITEM	QUANTITY UNIT		TOTAL	PRICE	TOTAL	PRICE	TOTAL	PRICE	TOTAL	PRICE	TOTAL
8 8-inch x 0.250-inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	22 L.F.	\$30.00	\$660.00	\$50.00	\$1,100.00	\$30.00	\$660.00	\$45.00	\$990.00	\$50.00	\$1,100.00
9 Boring or Jacking for 8-Inch Steel Cover Pipe, Unclassified Excavation	22 L.F.	\$60.00	\$1,320.00	\$100.00	\$2,200.00	\$90.00	51,980.00	\$85.00	\$1,870.00	\$80.00	\$1,760.00
10 3" Blowoff Assembly, Furnish and Install, Complete	5 Each	\$600.00	\$3,000.00	\$700.00	\$3,500.00	\$800.00	\$4,000.00	\$1,100.00	\$5,500.00	\$800.00	\$4,000.00
11 2-Inch Thickness Bltuminous Surface Replacement, Trench Width, On Drives and Roads, Complete	120 L.F.	\$20.00	\$2,400.00	\$20.00	\$2,400.00	\$20.00	\$2,400.00	\$25.00	\$3,000.00	\$55.00	\$6,600.00
12 G-Inch Thickness Concrete Surface Replacement, Trench Width, on Drives, Complete	20 L.F.	\$20.00	\$400.00	\$40.00	\$800.00	\$40.00	\$800.00	\$55.00	\$1,100.00	\$60.00	\$1,200.00
Subtotal - Division "8"			\$131,855.50		\$131,282.00		\$160,046.00		\$186,484.25		\$208,724.00
JIVISION "C" - ALONG KY 7, LOW GAP ROAD, MACK ROAD, EARL C DRIVE AND TANGO ORIV	C DRIVE AND TAN	I GO DRIVE I									
1 8-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying, Backfilling, Fittings and Copper Tracer Wire, Unclassified Excavation, Complete	20,302 L.F.	\$15.60	\$316,711.20	\$13.50	\$274,077.00	\$15.00	\$304,530.00	\$18.00	\$365,436.00	\$21.00	\$426,342.00
<ol> <li>3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying, Backfilling, Fittings and Copper Tracer Wire, Unclassified Excavation, Complete</li> </ol>	4,741 L.F.	\$6.50	\$30,816.50	\$6.00	\$28,446.00	\$7.00	\$33,187.00	\$10.25	\$48,595.25	\$12.00	\$56,892.00
3 8-Inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete	14 Each	\$950.00	\$13,300.00	\$1,100.00	\$15,400.00	\$1,250.00	\$17,500.00	\$1,300.00	\$18,200.00	\$900.00	\$12,600.00
<ul> <li>3-Inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete</li> </ul>	3 Each	1 \$550.00	\$1,650.00	\$600.00	\$1,800.00	\$500.00	\$1,500.00	\$850.00	\$2,550.00	\$600.00	51,800.00
5 5/8-Inch x 3/4-Inch Meter Setting but Does Not Include Meter but Does Include PRV, Meter Box, Cover, Corporation Stop, Saddle, and Tap, Furnish and Install, Complete	56 Each	\$740.00	\$41,440.00	\$825.00	\$46,200.00	\$830.00	\$46,480.00	\$690.00	\$38,640.00	\$900.00	\$50,400.00
6 5/8-Inch x 3/4-inch Meter Setting but Does Not Include Meter but Does Include Meter Box, Cover, Corporation Stop, Saddle, and Tap, Furnish and Install, Complete	o, 7 Each	\$700.00	\$4,900.00	\$750.00	\$5,250.00	\$730.00	\$5,110.00	\$590.00	\$4,130.00	\$850.00	\$5,950.00
7 5/8-Inch x 3/4-Inch Meter with Touch-Read Assembly, installed, Compiete	63 Each	1 \$160.00	\$10,080.00	\$200.00	\$12,600.00	\$300.00	\$18,900.00	\$310.00	\$19,530.00	\$0.00	\$0.00

CONTRACT 519-08-04 WATER SYSTEM IMPROVEMENTS
INTERCOUNTY CONNECTION
KY 1410 AND KY 7
LETCHER COUNTY WATER AND SEWER DISTRICT
LETCHER COUNTY, KENTUCKY

We certify that the following is a true and complete tabulation of all bids received by the Letcher County Water and Sewer District, on September 22, 2009, for the titled project.

BELL ENGINEERING

			121	Stotts Constr	uction Co., In	Stotts Construction Co., Il Music Construction Co., Inc.	Г	Ronnie Mullins & Sons, Inc.	Sons, Inc.	Akins Excavating Co., Inc.		B.P. Pineline 110	
				P.O. Box 1689 203 Burkesvill	) le Street, #1	kesville Street. #1 Mt. Sterling. Kentucky 40353		P.O. Box 427 Elkhorn City, Kentucky 41522	1tucky 41522	182 Busy Lane Corbin, Kentucky 4070		269 Pebble Lane Onincy Kentucky 41166	e e fv 41166
				Columbia, Ke	Columbia, Kentucky 42728		_						
NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL
8	3/4-Inch Polyethylene Service Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Copper Tracer Wire, Unclassified Excavation, Complete	4,100	ند ب	\$6.25	\$25,625.00	\$5.00	\$20,500.00	\$7.00	\$28,700.00	\$7.00	\$28,700.00	\$10.00	\$41,000.00
ō,	8-Inch x 0.250-Inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	40	<u>ٿ</u> ب	\$30.00	\$1,200.00	\$50.00	\$2,000.00	\$30.00	51,200.00	\$45.00	\$1,800.00	\$60.00	\$2,400.00
10	Boring or Jacking for 8-inch Steel Cover Pipe, Unclassified Excavation	40	F.	\$50.00	\$2,000.00	\$100.00	\$4,000.00	\$90.00	\$3,600.00	\$85.00	\$3,400.00	\$90.00	\$3,600.00
=	12-inch x 0.250-inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	80	u. L	\$40.00	\$3,200.00	\$50.00	\$4,000.00	\$40.00	\$3,200.00	\$50.00	\$4,000.00	\$80.00	\$6,400.00
12	Boring or Jacking for 12-Inch Steel Cover Pipe, Unclassified Excavation	80	Ä,	\$70.00	\$5,600.00	\$100.00	\$8,000.00	\$90.00	\$7,200.00	\$95.00	\$7,600.00	\$150.00	\$12,000.00
13	14-Inch x 0.281-Inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	150	H.	\$35.00	\$5,250.00	\$50.00	\$7,500.00	\$45.00	\$6,750.00	\$70.00	\$10,500.00	\$160.00	\$24,000.00
4	Boring or Jacking for 14. Inch Steel Cover Pipe, Unclassified Excavation	150	и. Li	\$75.00	\$11,250.00	\$120.00	\$18,000.00	\$150.00	\$22,500.00	\$105.00	\$15,750.00	\$200.00	530,000.00
15	Fiberglass Line Marker, Furnish and Install, Complete	12	Each	\$30.00	\$360.00	\$50.00	\$600.00	\$30.00	\$360.00	\$50.00	\$600.00	\$50.00	\$600.00
91	Test Meter/Tap Assembly, Furnish and Install, Per Detail, Complete	2	Each	\$1,100.00	\$2,200.00	\$3,000.00	\$6,000.00	\$2,500.00	\$5,000.00	\$2,500.00	\$5,000.00	\$600.00	\$1,200.00
17	Crushed Rock on Trench Surface, In Place	160	Ton	\$18.00	\$2,880.00	\$20.00	\$3,200.00	\$21.00	\$3,360.00	\$30.00	\$4,800.00	\$40.00	\$6,400.00
18	Automatic Air Release Assembly	-	Each	\$500.00	\$500.00	\$1,100.00	\$1,100.00	\$500.00	\$500.00	\$980.00	\$980.00	\$600.00	\$600.00
19	6-Inch Flushing Hydrant Assembly, with Tee, Pipe, Valve, Valve Box and Blocking, Complete	2		\$2,800.00	\$5,600.00	\$3,500.00	\$7,000.00	\$3,000.00	\$6,000.00	\$3,200.00	\$6,400.00	\$3,200.00	\$6,400.00
20	Tie-In to Existing 6- or 8-Inch Main, Complete	m	Each	\$250.00	\$750.00	\$1,225.00	\$3,675.00	\$2,000.00	\$6,000.00	\$4,450.00	\$13,350.00	\$2,000.00	\$6,000.00
17	3" Blowoff Assembly, furnish and Install, Complete	ĸ	Each	\$1,200.00	\$3,600.00	\$700.00	\$2,100.00	\$800.00	\$2,400.00	\$1,100.00	\$3,300.00	\$1,800.00	\$5,400.00
22	2-Inch Thickness Bituminous Surface Replacement, Trench Width, On Streets, Drives and Roads, Complete	230	u u	\$20.00	\$4,600.00	\$20.00	\$4,600.00	\$20.00	\$4,600.00	\$25.00	\$5,750.00	\$40.00	\$9,200.00

CONTRACT 519-08-04 WATER SYSTEM IMPROVEMENTS
INTERCOUNTY CONNECTION
KY 1410 AND KY 7
LETCHER COUNTY WATER AND SEWER DISTRICT
LETCHER COUNTY, KENTUCKY

We certify that the following is a true and complete tabulation of all bids received by the Letcher County Water and Sewer District, on September 22, 2009, for the titled project.

BELL ENGINEERING

Sigh Cultip

		<u>ភ ๔ २ บ</u>	Stotts Construction Co., IIIN P.O. Box 1689 203 Burkesville Street, #11M Columbia, Kentucky 42728	ction Co., In 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Stotts Construction Co., In Music Construction Co., Inc. P.O. Box 1689 203 Burkesville Street, #1 Mt. Sterling, Kentucky 40353 Columbia, Kentucky 42728	~	Ronnie Mullins & Sons, Inc. P.O. Box 427 Elkhorn City, Kentucky 41522	k Sons, Inc. ntucky 41522	Akins Excavating Co., Inc. 182 Busy Lane Corbin, Kentucky 40701		B.P. Pipeline, LLC 269 Pebble Lane Quincy, Kentucky 41166	ry 41166
ITEM NO. ITEM QUA	QUANTITY	TIND	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL
23 6-inch Thickness Concrete Surface Replacement, Trench Width, On Drives, Complete	20	. LE	\$20.00	\$400.00	\$40.00	\$800.00	\$40.00	\$800.00	\$55.00	\$1,100.00	\$100.00	\$2,000.00
Subtotal - Division "C"			54	\$493,912.70		\$476,848.00		\$529,377.00		\$610,111.25		\$711,184.00
DIVISION "D" - EXTRA TO DIVISIONS "A," "B," AND "C"												
1 Extra for Mechanical Removal of Solid Rock, Only On Order of the Engineer	2	Ç. <u>,</u>	\$20.00	\$100.00	\$20.00	\$100.00	\$40.00	\$200.00	\$75.00	\$375.00	\$100.00	\$500.00
2 Extra for Mechanical Tamping of Trench Backfill, When Not Required by Plans and/or Specifications, Only On Order of the Engineer	5	Ç. Y.	\$10.00	\$50.00	\$20.00	\$100.00	\$40.00	\$200.00	\$50.00	\$250.00	\$100.00	\$500.00
3 Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	'n	Ton	\$20.00	\$100.00	\$20.00	\$100.00	\$30.00	\$150.00	\$32.00	\$160.00	\$50.00	\$250.00
4 Extra for Crushed Rock for Pipe Bedding, Only on Order of the Engineer	'n	Ton	\$20.00	\$100.00	\$20.00	\$100.00	\$30.00	\$150.00	\$32.00	\$160.00	\$50.00	\$250.00
Subtotal - Division "D"				\$350.00		\$400.00		\$700.00		\$945.00		\$1,500.00
SUMMARY									www.na			
DIVISION "A" - HIGHWAY 1410 CONNECTOR			.3	\$273,264.00		\$306,535.00		\$340,959.00		\$392,685.50		\$456,906.00
DIVISION "8" - CAMP FORK ROAD AND SALUTED CREEK ROAD			<b>ν</b> 3	\$131,855.50		\$131,282.00		\$160,046.00		\$186,484.25		\$208,724.00
DIVISION "C" - ALONG KY 7, LOW GAP ROAD, MACK ROAD, EARL C DRIVE AND TANGO DRIVE			¥,	\$493,912.70		\$476,848.00		\$529,377.00	<del></del>	\$610,111.25		\$711,184.00
DIVISION "D" - EXTRA TO DIVISIONS "A," "B," AND "C"				\$350.00	il	\$400.00		\$700.00		\$945.00	and the second	\$1,500.00
TOTAL - CONTRACT 519-08-04			<del>tā</del>	\$899,382.20		\$915,065.00		\$1,031,082.00		\$1,190,226.00		\$1,378,314.00



STEVEN L. BESHEAR GOVERNOR

LEONARD K. PETERS SECRETARY

#### **ENERGY AND ENVIRONMENT CABINET**

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

July 23, 2009

Mr. Phillip Back, Director Letcher Co Water District PO Box 827 Whitesburg, KY 41858

RE:

Letcher Co Water District AI # 2666, APE20090002 PWSID # A-01422: e-09-002

HWY 1410 Knott County Interconnect

Letcher County, KY

Dear Mr. Back:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 8,184 feet of 12-inch PVC, 20,200 feet of 8-inch PVC and 15,362 feet of 3-inch PVC waterline as well as a master meter for an interconnect to Knott County. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

If you have any questions concerning this project, please contact Ms. Sarah Tucker at 502-564-8158 extension 4836.

Sincerely,

for

Solitha Dharman, PE Supervisor, Engineering Section Water Infrastructure Branch Division of Water

SD:ST

Enclosures

C: Bell Engineering

Letcher County Health Department Knott County Health Department Public Service Commission

Kentucku

#### Page i of i

# Distribution-Major Construction Letcher Co Water District

Subject Item Inventory

Activity ID No.: APE20090002

#### subject Item Inventory:

#### Subject Item Groups:

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		(
≘	ID Description	Components
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ATO A C	CACTS 18 184 feet of 12-inch PVC 20 200 feet of 8-inch PVC	l feet of 8-inch PVC — PORT6 8 184 feet of 12-inch PVC 20 200 feet of 8-inch PVC and 15 362 feet of 3-inch PVC
うてうてう		
	and 15,362 feet of 3-inch PVC	
: .	•	

3QPT = Equipment 4KEA = Area

PERS = Personnel

TRMT = Treatment STOR = Storage

MNPT = Monitoring Point COMB = Combustion PORT = Transport

AIOO = Agency Interest

STRC = Structure

Distribution-Major Construction Letcher Co Water District Facility Requirements

Activity ID No.: APE20090002

ACT000000008 (HWY 1410 Knott County Interconnect) 8,184 feet of 12-inch PVC, 20,200 feet of 8-inch PVC and 15,362 feet of 3-inch PVC:

## Monitoring Requirements:

Condition No.	Parameter	Condition
M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new or relocated water line(s). Take samples at connection points to existing lines, at 1 mile intervals, and at dead ends without omitting any branch of the new or relocated water line. Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7), 401 KAR 8:150 Section 4, Recommended Standards for Water Works 8:5.6] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

# Submittal/Action Requirements:

#### Coliform:

Condition	
No.	Condition
<del>ا</del> خ.	Coliform For new construction projects, the distribution system, using the most expedient method, shall submit Coliform test results to the Cabinet: Due immediately following disinfection and flushing. [401 KAR 8:150 Section 4(2)]

Condition	
No.	Condition
S-2	For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]
S-3	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements, 1401 KAR 8:100 Section 1(8)1

Letcher Co Water District Facility Requirements

Activity ID No.: APE20090002

Page 2 of 8

## ;ACT0000000008 (continued):

#### Narrative Requirements: Additional Limitations:

Condition

	tof project components shall be disposed in a manner which will not violate 401 KAR 5:031. [401 KAR 8:020 Section
Condition	Additional Limitations: Chlorinated water resulting from disinfection of project components shall be disposed in 2(20)]
No.	T-1

# Condition Condition Š.

- This project has been permitted under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies. Further, this permit does not address the authority of the permittee to provide service to the area to be served. [401 KAR 8:100 Section 1(7)]
- Unless construction of this project is begun within I year from the issuance date of this permit, the permit shall expire. If requested prior to the permit expiration, an official extension from the Division of Water may be granted. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review. If you have any questions concerning this project, please contact the Drinking Water Branch at 502/564-3410. [401 KAR 8:100 Section

T-3

T-4

T-2

- Any proposed change to the approved plan shall be submitted to the cabinet for approval. The public water supply shall not implement any change to the approved Final approval of facility. Upon completion of construction, the person who presented the plans shall certify in writing that the project has been completed in accordance with the "approved" plans and specifications. The public water supply shall operate the facility consistent with the approved plans and specifications. plan without the prior written approval of the cabinet. [401 KAR 8:100 Section 401 KAR 8:100(1)(8)]
- During construction, a set of approved plans and specification shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 1(7)(a)] T-5

Letcher Co Water District Facility Requirements Activity ID No.: APE20090002

Page 3 of 8

# ORT000000006 (Water Line) 8,184 feet of 12-inch PVC, 20,200 feet of 8-inch PVC and 15,362 feet of 3-inch PVC:

## Limitation Requirements:

Condition	Parameter	Condition
	i manietei	Condition
7	Depth	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a Depth >= 6 in below the bottom of the pipe. [Recommended Standards for Water Works 8.5.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
1-2	Depth	All water lines shall be covered to a Depth >= 30 in to prevent freezing. [Recommended Standards for Water Works 8.5.3, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Diameter	All water lines shall have Diameter >= 3 in. [Recommended Standards for Water Works 8.1.4] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Diameter	Water lines with Diameter < 6 in shall not have fire hydrants. [Recommended Standards for Water Works 8.1.5] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-5	Diameter	All new and existing water lines serving fire hydrants or where fire protection is provided shall have Diameter >= 6 in. [Recommended Standards for Water Works 8.1.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-6	Distance	Water lines shall have a sufficient quantity of valves so that inconvenience and sanitary hazards will be minimized during repairs. A valve spacing Distance <= 1.0 mi should be utilized. [Recommended Standards for Water Works 8.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-7	Distance	Hydrant drains shall not be connected to sanitary sewers or storm drains and shall be located a Distance > 10 ft from sanitary sewers and storm drains. [Recommended Standards for Water Works 8.3.4] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
<u>\$</u>	Distance	Except when not practical, water lines shall be laid a horizontal Distance >= 10 ft from any existing or proposed sewer. The distance shall be measured edge to edge.  In cases where it is not practical to maintain a 10 foot separation, water lines may be installed closer to a sewer provided that the water lines shall be laid in a separate trench or on an undisturbed shelf located on one side of the sewer at such an elevation that the bottom of the water line is at least 18 inches above the top of the sewer. [Recommended Standards for Water Works 8.6.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.

Letcher Co Water District Facility Requirements Activity ID No.: APE20090002

Page 4 of 8

## 'ORT00000000006 (continued):

## Limitation Requirements:

Condition		
No.	Parameter	Condition
L-9	Distance	When water lines and sewers cross,  1) water lines shall be laid such that either a) the the top of the water line is a vertical Distance >= 18 in below the bottom of the sewer line, b) the bottom of the water line is a vertical Distance >= 18 in above the top of the sewer line, 2) I full length of the water pipe shall be located so that both joints of the water pipe will be as far from the sewer as possible
L-10	Distance	The open end of an air relief pipe from automatic valves shall be extended a Distance >= 1.0 ft above grade and provided with a screened, downward-facing elbow. The pipe from a manually operated valve shall be extended to the top of the pit. Use of manual air relief valves is recommended wherever possible. [Recommended Standards for Water Works 8.4.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
F-11	Pressure	Pipes shall not be installed unless all points of the distribution system remain designed for ground level Pressure >= 20 psi under all conditions of flow. [Recommended Standards for Water Works 8.1.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-12	Pressure	Pressure >= 30 psi must be available on the discharge side of all meters. [401 KAR 8:100 Section 4(2)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
L-13	Residual Disinfection	New or relocated water lines shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect the new or relocated lines use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 60 mm.

monitoring applicable to the line does not show the presence of Coliform.

If Coliform is detected, repeat flushing of the line and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the line has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:150 Section 4(1), Recommended Standards for Water Works 8.5.6] This requirement is applicable during

the following months: All Year. Statistical basis: Minimum.

such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection >= 25 ppm at the end of 24 hours. Follow the line disinfection with thorough flushing and place the lines into service if, and only if, Coliform

Letcher Co Water District Facility Requirements Activity ID No.: APE20090002

ORT00000000006 (continued):

#### Limitation Requirements:

Condition No.	Parameter	Condition
7-14	Velocity	Each blow-off, fire hydrant, or flush hydrant shall be sized so that Velocity >= 2.5 ft/sec can be achieved in the water main served by the blow-off or hydrant during flushing. [Recommended Standards for Water Works 8.1.6.b, 401 KAR 8.100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

#### Monitoring Requirements:

Condition	Dansel	
NO.	rafailleler	Condition
M-1	leaks	The presence or absence of leaks monitored by physical testing as needed shall be determined in all types of installed pipe. Pressure testing and leakage testing shall be in accordance with the latest edition of AWWA Standard C600. [Recommended Standards for Water Works 8.5.5] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

#### Narrative Requirements:

Asbestos (Friable):

	•	
	Condition	
Condition	No.	

Asbestos (Friable):
If the existing water line to be tapped is asbestos concrete, then the contractor shall conform to OSHA regulations governing the handling of hazardous waste during the process of tapping the asbestos concrete line. Pieces of asbestos concrete resulting from the tap shall be double bagged, placed in a rigid container and disposed of in an approved landfill. [401 KAR 8:100 Section 1(7)] 7-1

Page 5 of 8

Letcher Co Water District Facility Requirements Activity ID No.: APE20090002

Page 6 of 8

# 'ORT00000000000 (continued);

#### Narrative Requirements: Additional Limitations:

	Condition	
Condition	No.	

Additional Limitations:

T-2

Ţ-4

T-5

Water line installation shall be in accordance with AWWA standards or manufacturer recommendations. [Recommended Standards for Water Works 8.5.1] Additional Limitations: T-3

Pipes, fittings, valves and fire hydrants shall conform to the latest standards issued by the AWWA or NSF (if such standards exist). PVC and PE piping used must

be certified to ANSI/NSF Standard 61. [Recommended Standards for Water Works 8.0.1]

At high points in water lines, where air can accumulate, provisions shall be made to remove the air by means of hydrants or air relief valves. Automatic air relief valves shall not be used in situations where manhole or chamber flooding may occur. [Recommended Standards for Water Works 8.4.1] Additional Limitations:

All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Additional Limitations: Works 8.5.4]

A flush hydrant or blow-off shall be required at the end of each dead end line that is less than 6 inches in diameter. [Recommended Standards for Water Works Additional Limitations;

T-6

Additional Limitations: For each fire or flush hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]

No flushing device, blow-off, or air relief valve shall be directly connected to any sewer. Chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances shall not be directly connected to any storm drain or sanitary sewer. Such chambers, pits or manholes shall be drained to absorptions pits underground or to the surface of the ground where they are not subject to flooding by surface water. [Recommended Standards for Water Works 8.1.6, Recommended Standards for Water Works 8.4.3] Additional Limitations:

nonpermeable materials shall be used in all portions of the water line installation or replacement. [401 KAR 8:100 Section 1(5)(d)6, Recommended Standards for If water lines are installed or replaced in areas of organic contamination or in areas within 200 ft of underground or petroleum storage tanks, ductile iron or other Additional Limitations:

T-9

T-8

7-7

Letcher Co Water District Facility Requirements

Activity ID No.: APE20090002

## ORT0000000006 (continued):

#### Narrative Requirements:

#### Additional Limitations:

#### Condition Condition Š.

Additional Limitations: T-10

No water pipe shall pass through or come in contact with any part of a sewer manhole. [Recommended Standards for Water Works 8.6.6]

Additional Limitations: T-II

If a fire sprinkler system is to be installed, a double check detector assembly approved for backflow prevention shall be utilized. The double check detector assembly of the system shall be accessible for testing, [401 KAR 8:100 Section 1(7)]

Additional Limitations: T-12

If water lines cross a stream or wetland, the provisions in the attached Water Quality Certification shall apply. If you have any questions please contact the Water Quality Certification Supervisor of the Water Quality Branch at (502) 564-2225. [401 KAR 8:100 Section 1(7)]

#### Subfluvial Pipe Crossings:

#### Condition

Condition Š.

#### Subfluvial Pipe Crossings: T-13

For subfluvial pipe crossings, a floodplain construction permit will not be required pursuant to KRS 151.250 if the following requirements of 401 KAR 4:050

- No material may be placed in the stream or in the flood plain of the stream to form construction pads, coffer dams, access roads, etc. during construction of pipe crossings.
  2) Crossing tr
  - Crossing trenches shall be backfilled as closely as possible to the original contour.
- All excess material resulting from construction displacement in a crossing trench shall be disposed of outside the flood plain.
  - For erodible channels, there shall be at least 30 inches of backfill on top of all pipe or conduit points in the crossing.
- 5) For nonerodible channels, pipes or conduits in the crossing shall be encased on all sides by at least 6 inches of concrete with all pipe or conduit points in the crossing at least 6 inches below the original contour of the channel. [401 KAR 8:100 Section 1(7)]

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Letcher Co Water District Facility Requirements Activity ID No.: APE20090002

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Narrative Requirements:

Subfluvial Pipe Crossings:

Condition Condition No.

T-14

Subfluvial Pipe Crossings:
For subfluvial pipe crossings greater than 15 feet in width,
1) the pipe shall be of special construction, having flexible, restrained, or welded watertight joints, and
2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair.

be easily accessible, not be subject to flooding, and

a) be easily accessible,
 b) not be subject to flooding, and
 c) if closest to the supply source, be in a manhole with permanent taps made on each side of the valve to allow insertion of a small meter to determine leakage and for sampling purposes. [Recommended Standards for Water Works 8.7.2]

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#### LETCHER COUNTY WATER AND SEWER DISTRICT

#### PROJECTED O&M COST AFTER COMPLETION OF WATER SYSTEM IMPROVEMENTS INTERCOUNTY CONNECTION - KY 1410 AND KY 7

DESCRIPTION	AVERAGE MONTHLY COST	AVERAGE YEARLY COST
Electrical Cost @ Pump Stations	\$ 566.00	\$ 6,792.00
Electrical Cost @ Tank	\$ 26.00	\$ 245.00
Postage	\$ 595.00	\$ 7,140.00
Labor	\$ 12,700.00	\$ 152,400.00
Supplies	\$ 618.00	\$ 7,416.00
Total		\$ 173,993.00

Note 1: Assumes existing District employees will be utilized for project related activities.

Note 2: Does not include purchase cost of water.

Note 3: Calculation of O&M Costs associated with first year of operation when the project is still under warranty.